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LINDBERGH MAKES THE FIRST NONSTOP SOLO FLIGHT ACROSS THE ATLANTIC OCEAN

Category of event: Space and aviation

Time: May 20-21, 1927 Locale: New York to Paris

In his high-wing monoplane, The Spirit of St. Louis, Lindbergh became the first aviator to fly solo across the Atlantic Ocean, making the trip from New York to Paris in 33.5 hours

Principal personage:

CHARLES A. LINDBERGH (1902-1974), an American aviator who emerged an instant hero because of his epoch-making flight from New York to Paris in May of 1927

Summary of Event

Early on the misty and somewhat foggy morning of May 20, 1927, a small group of assistants began rolling Charles A. Lindbergh's sleek high-wing monoplane, *The Spirit of St. Louis* out of its hangar to a special runway located at Roosevelt Field, Long Island. The airstrip, soggy and soft from rainfall, had been extended by Commander Richard E. Byrd for the express purpose of attempting to fly nonstop from New York to Europe, and because of a minor crash, Byrd's plans had been delayed. Graciously, Byrd had offered his competitor the facility, despite the fact that both were eager to earn the \$25,000 Orteig prize. Lindbergh's careful planning, his choice of an aircraft of utmost simplicity in design yet incorporating the latest in technical sophistication, and his courage all contributed to a flight that would capture the public's attention and revolutionize commercial aviation.

With the backing of several St. Louis investors and two thousand dollars of his own money, Lindbergh had commissioned the Ryan Aircraft Company of San Diego to design *The Spirit of St. Louis* from his specifications and to construct the plane in sixty days during the winter of 1926-1927. Lindbergh had a lifelong interest in mechanical things, beginning with the driving of his father's Model T Ford in 1913. A failure as an engineering student at the University of Wisconsin, he subsequently received pilot training at a private aviation school in Lincoln, Nebraska, and from the U.S. Army Air Corps in Texas during the early 1920's. After performing in aerial circuses and as a barnstormer, Lindbergh served as an airmail pilot on the stormplagued St. Louis to Chicago route in 1926; it was during one of those trying flights that he decided to fly the Atlantic alone.

The Ryan-built Spirit of St. Louis reflected the elegant simplicity of Lindbergh's thinking, but it was this very simplicity, coupled with the installation of Curtis-Wright Aircraft Company's newly designed and highly reliable "Whirlwind" nine-cylinder air-cooled engine that proved pivotal to his ultimate success. With no ra-

diator to leak or clog, a backup magneto ignition system, and a double carburetor, the aircraft possessed the best powerplant available at the time. While *The Spirit of St. Louis* was equipped with neither a radio nor a parachute, its sensitive control mechanisms, sturdy construction, and incorporation of the latest instrumentation—including an earth inductor compass—made it a prototype for aircraft that would follow in the wake of its success.

Upon returning home a hero from Paris, Lindbergh, never eager to garner all the praise, recognized that his achievement of May, 1927, was far more the consequence of engine and airframe design rather than individual courage; this point was succinctly made by the title of his first book, We (1927). Lindbergh asserted in 1928 that it was the skill of many anonymous engineers, mechanics, and artisans that ultimately had led to the triumph of The Spirit of St. Louis.

As The Spirit of St. Louis was prepared for takeoff, a weary Lindbergh, unable to sleep in the early hours of May 20, began to assemble necessary supplies and equipment before taking off. Seated in a slightly reclined wicker seat in the cockpit and with a window on either side, Lindbergh was unable to see directly forward without peering through a movable periscope. Initially disturbed at the sound and vibration of his engine at start-up, Lindbergh's life was on the line, for he was piloting nothing more than a flying bomb, since the aircraft was loaded with more than a ton of fuel in tanks located within the wings and fuselage. The plane's weight, its untested landing wheels, and adverse runway conditions caused concern among the many onlookers who watched the silver Spirit of St. Louis skid and hop to its final takeoff, clearing trees and telephone wires at 7:52 A.M. On viewing the hair-raising event, one reporter commented that Lindbergh had left the ground by "his indomitable will alone."

Once airborne, Lindbergh began to follow the so-called Great Circle route from New England to France, thereby flying far from the most frequently used shipping lanes. Navigating by dead reckoning and taking readings about every 160 kilometers after which heading corrections were made, Lindbergh followed a path that took him over Brockton, Massachusetts; Mainadieu, Nova Scotia; St. Johns, Newfoundland; Dingle Bay, Ireland; Bayeux, France; and finally Le Bourget Field, Paris, where he arrived at 5:21 P.M. (eastern standard time), Saturday, May 21, 1927.

During the long voyage, Lindbergh had to confront two major challenges—ice formation on the wings and exhaustion. Well versed in piloting aircraft in adverse weather, Lindbergh steered his tiny plane above and around storm formations over the North Atlantic, but the weight of ice on the wings nearly terminated the flight. Yet, it was his constant battle to stay awake, an event he had planned for in California by staying awake for forty hours at a time, that proved most dangerous. As night descended after the first day, Lindbergh's sheer exhilaration with flying, an experience in which he as the pilot and his machine seemed to merge as one, gave way to fatigue during which his mind began to lose touch with reality. Mirages suddenly began to appear in the middle of the ocean, and he witnessed phantoms or ghosts move in and out of the fuselage. With the sighting of fishing trawlers off the coast of

Ireland, Lindbergh returned to his senses, and by reaching landfall near Dingle Bay, his navigation had proved to be nearly perfect. The remainder of the trip was uneventful, although ironically after traveling more than 4,800 kilometers, he had difficulty finding the Le Bourget airfield shrouded in darkness and obscured by the many city lights. Expecting to be greeted by only a handful of aviation enthusiasts, Lindbergh was shocked by the massive crowds pushing down barriers and pressing toward him, eager to touch the humble and unassuming pilot who was to be the hero of the decade and the instigator of a popular wave of enthusiasm centered on the seemingly limitless potential of aviation technology. With little financial support and no corporate backing, flying a plane that was built by a little-known aircraft company recognized only for its construction of mail planes used on west coast routes, an unknown outsider had set the future course for commercial aviation. In succeeding in what was considered a foolhardy stunt, Lindbergh was now a public figure—a hero in an age that was desperately looking for such an individual.

Impact of Event

When Lindbergh landed at the Le Bourget airport in Paris on May 21, 1927, the spirit of America was suddenly reborn. In a fashion not unlike that of the landing of the first space shuttle in 1980, a distracted and disillusioned America found new hope and pride. The roaring 1920's, despite all of its prosperity, were years of anxiety, uncertainty, and disappointment, in part the consequence of a post-World War I societal self-examination and in part a response to a new culture where seemingly the machine dominated the individual. For a time, Lindbergh's flight would erase all fears and doubts and Americans could simultaneously celebrate the somewhat paradoxical triumph of both the individual and an organized technological society.

In becoming the hero to a generation, Lindbergh's private life came to an end. Now under constant scrutiny by the press, Lindbergh became the symbol and inspiration of what Americans wanted to be. Since he had no copilot and limited financial support, his feat was emotionally rooted in the American past, an individual pioneer like those who developed the West during the nineteenth century. Further, his innate qualities were not the result of university education, for he had dropped out of the University of Wisconsin before completing his second year, never happy with formal learning. Rather, Lindbergh had acquired his values in the Minnesota woods, like pioneer stock who had settled the land two generations before him.

Upon returning from France, Lindbergh would embark on a forty-eight-state tour that inaugurated a new enthusiasm for commercial aviation. During 1928, almost every major community in the United States embarked on an airport construction program, and private flying schools as well as aeronautics within universities flourished. Thus, a powerful technological momentum developed that would radically catalyze the development of new engines, air frames, and the science of aerodynamics. Indeed, Lindbergh's courage, coupled with his ability to design fundamentally *The Spirit of St. Louis*, resulted in the golden age of aviation that followed during the 1930's.

Bibliography

Fife, George Buchanan. Lindbergh, the Lone Eagle: His Life and Achievements. New York: World Syndicate, 1927. Representative of a literary genre on Lindbergh that appeared within a year of his successful New York to Paris flight, Fife's book is useful. The book not only captures the phenomenal public response to the achievement but also describes with excellent detail the layout and instrumentation aboard The Spirit of St. Louis.

Gill, Brendan. Lindbergh Alone. New York: Harcourt Brace Jovanovich, 1977. In an extremely well-written short biography of Lindbergh that concludes with the years immediately after the 1927 transoceanic flight, Gill traces the "lone eagle's" life, his development as a pilot during the early 1920's, and the events that led to his May 21, 1927, achievement. The author's style is penetrating, and the work is especially of interest for its analyses of Lindbergh and the phantoms or ghosts that

he claims to have experienced during the flight.

Lindbergh, Charles A. Autobiography of Values. New York: Harcourt Brace Jovanovich, 1977. Written near the end of his life and published posthumously, this autobiography provides a second look at Lindbergh's 1927 flight, thus supplementing his award-winning 1953 The Spirit of St. Louis. The book is clearly useful if one is to gain additional perspective on Lindbergh's personality, including his concern with environmental issues and his perceptions of the dynamic rela-

tionships between science, technology, and society.

-. The Spirit of St. Louis. New York: Charles Scribner's Sons, 1953. A beautifully written account of Lindbergh's New York to Paris flight written some twenty-five years after the event, it remains the most important source for understanding the details of Lindbergh's momentous achievement. Using flashbacks and free association, Lindbergh discusses the exhilaration and hazards of the flight, the scenery observed, and navigational methods employed to maintain *The Spirit* of St. Louis's course. He also reminisces on the many important events that helped shape his personality, values, and motives.

Mosley, Leonard. Lindbergh: A Biography. Garden City, N.Y.: Doubleday, 1976. In a work that clearly demolishes a number of hagiographic notions concerning Lindbergh, Mosley examines Lindbergh's long career, paying special attention to the aviator's late 1930's and early 1940's efforts to prevent the United States from entering World War II. Thus, the controversial aspects of Lindbergh's life, including his youth, are examined with a journalist flair, but also perhaps with a degree of simplicity in matters of scholarship that fails to deal with the subject adequately and with total fairness.

Parfit, Michael. "Retracing Lindy's Victorious Trip Across the Country." Smithsonian 18 (October, 1987): 200-220. In an informative article describing Lindbergh's 35,000-kilometer, forty-eight-state tour of 1927, Parfit asserts that Lindbergh not only kept the excitement of his achievement alive among the public but also did more in a short time to promote civil aeronautics than previous federal government attempts. Indeed, Lindbergh's transatlantic flight and his subsequent tour convinced the public that flying was no longer a sport for daredevils, but that it was safe, reliable, and could be used to move precious cargo.

Ward, John William. "Charles A. Lindbergh: His Flight and the American Ideal." In *Technology in America: A History of Individuals and Ideas*, edited by Carroll W. Pursell, Jr. Cambridge, Mass.: MIT Press, 1981. Perhaps the most insightful and interpretive article written on the consequences of Lindbergh's flight. Ward argues that the hero worship directed at Lindbergh was the result of Americans being able to celebrate simultaneously the triumph of both the individual in an increasingly bureaucratic age and paradoxically modern mechanical technology that made *The Spirit of St. Louis* possible. In the wake of post-World War I disillusionment, and in a decade during which assembly-line production dominated the economic scene, Lindbergh was a representative figure of the individual pioneer, rooted in the past and untainted by the modern institutions of a new industrial order that emerged in early twentieth century America.

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Cross-References

The Wright Brothers Launch the First Successful Airplane (1903), p. 203; Blériot Makes the First Airplane Flight Across the English Channel (1909), p. 448; The First Jet Plane Using Whittle's Engine Is Flown (1941), p. 1187.